

Application Serial No. 10/531,218  
Reply to Office Action July 31, 2009

PATENT  
Docket CU-4148

## REMARKS

In the Office Action dated July 31, 2009, the Examiner states that claims 1 and 4 are pending and claims 1 and 4 are rejected. As only claims 1 and 4 are currently pending in this application, Applicant refers only to claims 1 and 4 below. The Applicant believes that the remarks made over the Claims are fully responsive to and overcome the rejections.

In the specification, please amend the specification. The specification has been amended to provide antecedent basis for the terms "a foaming agent to produce a foam having bubbles," "the foam having bubbles," "a foam having bubbles with the desired sizes," "agents for increasing sizes of pores formed by bubbles in the foamed gypsum slurry," and "agents for decreasing sizes of pores formed by bubbles in the foamed gypsum slurry". The amendments to the specification can be seen in the Amendments section of this paper, beginning on page 2. No new matter has been added.

In the claims, please amend claim 1. Claim 1 is amended to change the recitations "a board-shaped one" and "the dried and shaped one" to "the board shape" and "the dried board shape". Support for these amendments can be found in the original disclosure, for instance in original claim 1. No new matter has been added. The amendments to the claims can be viewed in the Amendments section of this paper in the Listing of claims beginning on page 2.

### Objection to the specification.

The specification is objected to for failing to provide proper antecedent basis for the terms "a foaming agent to produce a foam having bubbles," "the foam having bubbles," "a foam having bubbles with the desired sizes," "agents for increasing sizes of pores formed by bubbles in the foamed gypsum slurry," and "agents for decreasing sizes of pores formed by bubbles in the foamed gypsum slurry". The Applicant has amended the specification and submits that the amendments are fully responsive to the objection. The Applicant further

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respectfully requests that the Examiner withdraw this objection to the specification.

**Rejection of Claims 1 and 4 under 35 U.S.C. §112, second paragraph.**

Claims 1 and 4 are rejected under 35 U.S.C. §112, second paragraph, for being indefinite. In response, the Applicant has amended claims 1 and 4 to change "the board-shaped one" and "the dried and shaped one" to "the board shape" and "the dried board shape". The Applicant believes that these amendments are fully responsive to the rejection and also overcomes the rejection. The Applicant respectfully requests that the Examiner withdraw this ground of rejection of the claims.

**Rejection of the claims under 35 U.S.C. §103(a).**

The Examiner rejects the claims as obvious under 35 U.S.C. 103(a) over the disclosure in the specification on page 1, lines 19-33, page 2 lines 1-12, in view of Sucech, U.S. 5,643,510, and Japan (JP 10-330174).

The Applicant respectfully disagrees and submits that claims 1 and 4 are non-obvious.

Claim 1 discloses a combination of features that are not disclosed or suggested by the references. In particular, the references do not disclose "the step of preliminarily adding a pore size adjusting agent for adjusting sizes of pores formed by bubbles distributed in the foamed gypsum slurry to one of a stock solution of the foaming agent and the mixture of a stock solution of the foaming agent and water to obtain the foaming agent for producing a foam having bubbles with desired sizes":

Sucech does not disclose or suggest "a pore size adjusting agent for adjusting the sizes of pores formed by bubbles distributed in the foamed gypsum slurry" as recited in amended claim 1, because none of "a preformed first

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foaming agent which forms stable voids in a gypsum slurry" and "a preformed second foaming agent which forms unstable voids in a gypsum slurry" in claim 1 of Sucech and none of "the first foaming agent " and "the second foaming agent" as disclosed in claim 6 of Sucech should correspond to "a pore size adjusting agent for adjusting sizes of pores formed by bubbles distributed in the foamed gypsum slurry" as recited in claim 1 as amended.

Accordingly, Sucech fails to disclose or suggest the feature of "the step of preliminarily adding a pore size adjusting agent for adjusting sizes of pores formed by bubbles distributed in the foamed gypsum slurry to one of a stock solution of the foaming agent and a mixture of a stock solution of the foaming agent and water to obtain the foaming agent for producing a foam having bubbles with desired sizes" as recited in amended claim 1.

Furthermore, Japan also fails to disclose or suggest "the step of preliminarily adding a pore size adjusting agent for adjusting sizes of pores formed by bubbles distributed in the foamed gypsum slurry to one of a stock solution of the foaming agent and the mixture of a stock solution of the foaming agent and water to obtain the foaming agent for producing a foam having bubbles with desired sizes" as recited in amended claim 1, because "adding a compound having a defoaming effect or foam breaking effect as a foam stabilizer into a slurry" in paragraph [0007] of Japan and "a slurry provided by kneading each of the under-mentioned set of foam stabilizer "a defoaming agent or foam breaker" and foaming agent into 100 parts by weight of calcined gypsum, 85 parts by weight of water, 0.3 parts by weight of water reducing agent, 1 part by weight of methylcellulose, and 3.0 parts by weight of an hardening accelerator while using a commonly used pin mixer" in paragraph [0013] of Japan does not correspond to "the step of preliminarily adding a pore size adjusting agent for adjusting sizes of pores formed by bubbles distributed in the foamed gypsum slurry to one of a stock solution of the foaming agent and the mixture of a stock solution of the foaming agent and water to obtain the foaming agent for

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producing a foam having bubbles with desired sizes" as recited in amended claim 1.

Moreover, "a compound having a defoaming effect or foam breaking effect as a foam stabilizer" (or "foam stabilizer (a defoaming agent or foam breaker)") as disclosed in the Japan document does not correspond to, "or rather conflicts with, any of "a preformed first foaming agent which forms stable voids in a gypsum slurry" and "a preformed second foaming agent which forms unstable voids in a gypsum slurry" as disclosed in Sucech, because "a defoaming effect or foam breaking effect" or "a foam stabilizer" as disclosed in Japan does not correspond to, and in fact conflicts with, "forms stable voids" of "a preformed first foaming agent" or "forms unstable voids" of "a preformed second foaming agent" as disclosed in Sucech.

For example, if "a preformed second foaming agent" as disclosed in Sucech was replaced with "a compound having a defoaming effect or foam breaking effect as a foam stabilizer" as disclosed in Japan, foams that should be provided by "a preformed first foaming agent" as disclosed in Sucech would be defoamed or broken by "a compound having a defoaming effect or foam breaking effect as a foam stabilizer" as disclosed in Japan, and accordingly, it would be impossible or difficult for "a preformed first foaming agent" as disclosed in document 1 to form "stable voids in a gypsum slurry" as disclosed in Sucech.

Thus, it would not have been obvious for a person of skill in the art to replace "a preformed second foaming agent" as disclosed in Sucech with "a compound having a defoaming effect or foam breaking effect as a foam stabilizer" as disclosed in Japan.

Of course, no indication of replacement of "a preformed second foaming agent" as disclosed in Sucech with "a compound having a defoaming effect or

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foam breaking effect as a foam stabilizer" as disclosed in Japan is disclosed in Sucech or Japan.

Accordingly, there is no motivation for those skilled in the art to replace "a preformed second foaming agent" as disclosed in Sucech with "a compound having a defoaming effect or foam breaking effect as a foam stabilizer" as disclosed in Japan.

Thus there is no motivation, and it would not have been obvious, for those skilled in the art to attain a feature of "the step of preliminarily adding a pore size adjusting agent for adjusting sizes of pores formed by bubbles distributed in the foamed gypsum slurry to one of a stock solution of the foaming agent and a mixture of a stock solution of the foaming agent and water to obtain the foaming agent for producing a foam having bubbles with desired sizes" as recited in claim 1 as amended.

In addition, as indicated in lines 18-19 on page 3 of the office action, at least a feature of "the step of preliminarily adding a pore size adjusting agent for adjusting sizes of pores formed by bubbles distributed in the foamed gypsum slurry to one of a stock solution of the foaming agent and a mixture of a stock solution of the foaming agent and water" as recited in amended claim 1 is not disclosed or suggested in the descriptions at lines 19-33 on page 1 and lines 1-12 on page 2 of the specification as filed.

The Applicant submits, therefore, that claim 1, as amended and claim 4, depending therefrom, are obvious and allowable over the combination of Sucech and Japan, even if the descriptions at lines 19-33 on page 1 and lines 1-12 on page 2 of the specification as filed are taken into account.

The Applicant respectfully requests that the Examiner withdraw this rejection as to claims 1 and 4.

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In light of the foregoing response, all the outstanding rejections are considered overcome. Applicant respectfully submits that this application should now be in condition for allowance and respectfully requests favorable consideration.

Respectfully submitted,

10-30-09

Date



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